

2016 Ambient Air Monitoring Network Plan



Planning, Monitoring and Outreach Division

May 2016 Public Review Draft

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Introduction

Every year, the San Luis Obispo County Air Pollution Control District (SLOCAPCD) submits an ambient air monitoring network plan (ANP) to the United States Environmental Protection Agency (EPA); this document comprises the ANP for 2016. It is intended to fulfill the requirements of 40 CFR 58.10 and to provide information about local monitoring activities to the public. Consistent with these goals and requirements, this ANP will be made available for public review for at least 30 days prior to its submission to the EPA. All comments received, and any SLOCAPCD responses to those comments, will be submitted to EPA along with the ANP.

The ANP is a snapshot of the air monitoring network as it currently exists; it documents any changes since the last ANP (published May 2015) and any anticipated changes to the network over the next 18 months. This review and planning process helps ensure continued consistency with federal requirements and monitoring objectives. It also confirms and updates information in state and federal monitoring records. Information is provided for all ambient air pollution monitoring which occurred in the county, including sites operated by the California Air Resources Board (ARB). Data for ARB sites were obtained from that agency and are accurate to the best of our knowledge.

As detailed in subsequent sections, a few significant changes were made to the SLOCAPCD monitoring network since the last ANP:

- The nitrogen dioxide monitor at the Morro Bay station was shut down on March 31, 2016. This monitor was originally established in 2001 for surveillance of the power plant in Morro Bay, however, the plant permanently closed in 2014. Discontinuing this monitor was identified as a potential cost-saving measure in our 2015 Ambient Air Monitoring Network Assessment.¹ SLOCAPCD received pre-approval of the shutdown from the EPA in March 2016, as documented in Appendices D and E.
- In July 2015, a PM₁₀ monitor was established downwind of undisturbed, natural sand dunes in the Oso Flaco area of the Oceano Dunes State Vehicular Recreation Area (ODSVRA), a California State Park. SLOCAPCD Rule 1001 required the California Department of Parks and Recreation (CDPR) to establish this monitor and CDPR has contracted SLOCAPCD to operate it.
- As anticipated in our 2015 ANP, the operator of the Price Canyon Oilfield established a hydrogen sulfide monitor at its facility, which is located between the cities of Pismo Beach and San Luis Obispo. The monitor came online in February of 2016, and is operated by a contractor. SLOCAPCD has real-time access to the data generated by this station.

¹ San Luis Obispo County Air Pollution Control District, "2015 Ambient Air Monitoring Network Assessment," July 2015. <http://www.slocleanair.org/images/cms/upload/files/2015-network-plan-FINAL%281%29.pdf>

General Information on Air Monitoring Networks

Most ambient air quality monitoring stations operated by air quality agencies are classified as State and Local Air Monitoring Station (SLAMS). SLAMS are long-term monitoring stations and are generally considered to be permanent sites. Their primary objective is to collect data for comparison to the National Ambient Air Quality Standards (NAAQS). Stations may instead be classified as Special Purpose Monitors (SPM) or Prevention of Significant Deterioration (PSD) stations; these are generally short-term sites with objectives other than NAAQS comparison.

Appendix D of 40 CFR 58 specifies design criteria for SLAMS networks and states that networks must be designed to meet a minimum of three basic monitoring objectives: 1. Provide air pollution data to the public in a timely manner; 2. Support compliance with the NAAQS; and 3. Support air pollution research. A variety of site types are needed to support these basic objectives, including the six general types identified in the Appendix:

- Highest Concentration: Sites located to determine the highest concentration expected to occur in the area covered by the network;
- Population Exposure: Those located to determine representative concentrations in areas of high population density;
- Source Oriented: Sites located to determine the impact on ambient pollution levels of significant sources or source categories;
- General/Background: Those located to determine general background concentration levels;
- Regional Transport: Sites located to determine the extent of regional pollutant transport among populated areas, and in support of secondary standards; and
- Welfare Related Impacts: Sites located to determine the welfare-related impacts in more rural and remote areas (such as visibility impairment and effects on vegetation).

The physical siting of an air monitoring station must conform to the requirements of the Appendix, and its location must achieve a spatial scale of representativeness that is consistent with the monitoring objective and site type. The spatial scale results from the physical location of the site with respect to the pollutant sources and categories. It estimates the size of the area surrounding the monitoring site that experiences uniform pollutant concentrations. The categories of spatial scale defined in the Appendix are:

- Microscale: An area of uniform pollutant concentrations ranging from several meters up to 100 meters;
- Middle Scale: uniform pollutant concentrations in an area of about 110 meters to 0.5 kilometer;
- Neighborhood Scale: an area with dimensions in the 0.5 to 4 kilometer range;
- Urban Scale: Citywide pollutant conditions with dimensions from 4 to 50 kilometers;
- Regional Scale: An entire rural area of the same general geography (this area ranges from tens to hundreds of kilometers); and
- National and Global Scales.

The relationship between site type and spatial scale is summarized in Table 1, below, which is adapted from Table D-1 of the Appendix.

Table 1: Relationship between Site Type and Spatial Scale

Site Type	Appropriate Spatial Scale
Highest Concentration	Micro, middle, neighborhood, (sometimes urban or regional for secondary pollutants)
Population Exposure	Neighborhood, urban
Source Oriented	Micro, middle, neighborhood
General/Background	Neighborhood, urban, regional
Regional Transport	Urban, regional
Welfare Related Impacts	Urban, regional

Air Monitoring Stations in San Luis Obispo County

San Luis Obispo County comprises the San Luis Obispo- Paso Robles Metropolitan Statistical Area (MSA). Air monitoring responsibilities for the MSA are divided between SLOCAPCD and ARB, as allowed by Section 2(e) of Appendix D to 40 CFR 58. SLOCAPCD acknowledges this joint responsibility and is a member of the ARB Primary Quality Assurance Organization (PQAO). The roles and responsibilities of the two agencies with regard to fulfilling state and federal monitoring requirements are formalized in a "Roles and Responsibilities" document, which can be viewed on the ARB website.²

There are currently ten permanent ambient air monitoring stations (SLAMS) in the county/MSA; their locations are shown in Figure 1. Eight of these stations are operated by the SLOCAPCD, as part of our network. ARB operates the stations in Paso Robles and in San Luis Obispo, as part of their network. Table 2 lists these stations, along with the pollutant and meteorological parameters monitored at each location, as well as the site type.

In addition to these ten SLAMS, the District operates an eleventh station: CDPR's special purpose monitoring station located within the ODSVRA. The District also has a data feed from the monitor in the Price Canyon Oilfield, but does not play any role in data collection or validation. Table 3 summarizes the pollutant and meteorological parameters monitored at these non-SLAMS stations.

Table 2: Summary of Parameters Monitored at SLAMS in San Luis Obispo County

Site	Ozone ^b	Nitrogen Dioxide	Sulfur Dioxide	PM ₁₀	PM _{2.5}	Wind ^c	Temp
Atascadero	P, C	P, C		P	P	X	X
Carrizo Plains	T, B					X	X
CDF				S, C, S, C	X		
Grover Beach						X	
Mesa2			S, C	S	S	X	X
Morro Bay	B	B ^d				X	
Nipomo Regional Park (NRP)	B	B		B		X	X
Paso Robles ^a	P			P		X	X
San Luis Obispo ^a	P			P	P	X	X
Red Hills	T, C					X	X

Site Types: B = General/Background, C = Highest Concentration, P = Population Exposure, T = Regional Transport, X = Parameter measured at this site, S = Source.

Notes: ^a Paso Robles and San Luis Obispo are operated by ARB; all other sites are operated by SLOCAPCD.

^b Atascadero is the highest concentration site for the western county attainment area, while Red Hills is the highest concentration site for the eastern county nonattainment area. ^c Wind speed, wind direction, and sigma theta. ^d Discontinued March 31st, 2016.

² Air Resources Board, "Quality Management Documents, Document Repository, Finalized Roles and Responsibilities," http://arb.ca.gov/aaqm/qa/pqao/repository/rr_docs.htm.

Site	Hydrogen Sulfide	PM ₁₀	Relative Humidity	Wind ^a	Temp
Oso Flaco		X	X	X	X
Price Canyon Oilfield	X		X	X	X

Figure 1: Locations of air monitoring stations in San Luis Obispo County from May 2015 to May 2016. The thin red line depicts the boundary of the ozone nonattainment area.



Changes to Monitoring Network since the Previous ANP

Changes to the monitoring network since the publication of the last ANP in May of 2015 are summarized below.

Opened, Closed, and Relocated Stations

No existing air monitoring stations in San Luis Obispo County have closed or relocated since the previous ANP. Two new stations have begun operation ; however, neither is classified as a SLAMS.

Oso Flaco

Frequent exceedences of the California Ambient Air Quality Standard for 24-hour PM₁₀ (50 µg/m³) and occasional exceedence of the PM₁₀ NAAQS (150 µg/m³) are observed downwind of the ODSVRA on the Nipomo Mesa. To address these exceedences, the SLOCAPCD Board of Directors approved Coastal Dunes Dust Control Rule 1001 in 2011. The rule requires, inter alia, the ODSVRA operator (i.e., CDPR) to monitor PM₁₀ levels in at least two locations within or downwind of the ODSVRA: one downwind of an area where off-road vehicle activity is allowed ("riding area monitor"), and another downwind of a comparable area where off-road vehicle activity is not allowed ("control site monitor").³

SLOCAPCD and the operator have agreed to use our CDF monitoring station as the riding area monitor. This site will continue to be operated by SLOCAPCD as a SLAMS. In July 2015, the operator established the control site monitor in the Oso Flaco area of the ODSVRA. This site hosts a Met One BAM 1020 PM₁₀ monitor and a 10-meter tower with meteorological equipment. It is operated by SLOCAPCD under a contract with CPDR. The District validates and reports data from this site to the EPA's Air Quality System (AQS). The monitors at this site are designated as special purpose monitors rather than as SLAMS.

Price Canyon Oilfield

The Price Canyon Oilfield is located between Pismo Beach and the Edna Valley wine region, just south of the City of San Luis Obispo. (See Figure 1.) This area has long been plagued by odors emanating from the field. Therefore, as a condition of a permit for expanded oilfield operations, SLOCAPCD required on-site monitoring of hydrogen sulfide (H₂S). Monitoring began in February 2016. SLOCAPCD has access to raw data in real-time, but plays no role in its collection or validation. Data is not submitted to AQS, but is available from the District upon request.

Ozone Monitoring Network Changes

The monitor at Carrizo Plains was upgraded from a Teledyne-API 400A to a T400 in April 2016.

Particulate Monitoring Network Changes

Other than the establishment of the non-SLAMS PM₁₀ monitor at Oso Flaco, there have been no changes to the particulate monitoring network.

³ San Luis Obispo County Air Pollution Control District, "Coastal Dunes Rule 1001," <http://slocleanair.org/air/pmstudydata.php>.

Nitrogen Dioxide Monitoring Network Changes

The Morro Bay NO₂ monitor, a Teledyne-API T200U, was discontinued on March 31, 2016. This monitor was originally established in 2001 to monitor emissions from the power plant in Morro Bay; however, this facility was closed in 2014. In addition, the NO₂ levels observed here were generally low, never exceeding state or federal standards. For these reasons, our 2015 Ambient Air Monitoring Network Assessment identified this monitor as a candidate for shutdown. See Appendices D and E for SLOCAPCD's shutdown request and EPA's approval.

Sulfur Dioxide Monitoring Network Changes

No changes were made to the sulfur dioxide monitoring network.

Other Changes

- In March 2016, the Teledyne-API 700E gas calibrator at Atascadero was replaced with a T700 calibrator.
- Telemetry at all stations was upgraded from dial-up modem to TCP/IP over cellular modem.

Detailed Descriptions of the Current Network

Ozone Monitoring Network

All SLAMS in the county monitor for ozone except for CDF, Mesa2, and Grover Beach (see Table 2). The SLAMS network in San Luis Obispo County thus features ozone monitors located in Atascadero, Red Hills, Carrizo Plains, Paso Robles, Morro Bay, San Luis Obispo, and Nipomo Regional Park.

Atascadero – SLOCAPCD has operated an ozone monitor in Atascadero since 1988. As detailed in last year's ANP, the station was moved in 2015 from the central business district of downtown Atascadero, to a nearby city property. The original location was bounded on two sides by public schools, and the new site is adjacent to a community center. The monitor is classified as population-oriented and neighborhood scale. It provides a measurement of representative ozone concentration for the City of Atascadero. Ozone concentrations at this site exhibit strong diurnal fluctuations caused by the titration of ozone with oxides of nitrogen from nearby mobile and residential sources. Concentrations at this site are similar to those recorded at Paso Robles, and are often the highest among the five ozone monitors in the western portion of the county that are classified as attaining the federal ozone standard. The highest ozone concentrations at Atascadero occur when high pressure over the interior southwest U.S. causes transport of ozone and other pollutants into the county from the east. Under these infrequent conditions, transported ozone, enhanced by local pollutants, can cause highly elevated concentrations. The prevailing winds from the west and northwest help keep ozone levels at Atascadero low most of the time.

Carrizo Plains – Operated by SLOCAPCD since January 2006, this station monitors background levels and ozone transport from the interior areas of the state on a regional scale. The monitor is located in an outbuilding at the Carrisa Plains Elementary School. The ozone concentrations recorded here are second only to Red Hills in concentration and persistence; it is located within the Eastern San Luis Obispo County nonattainment area.

Morro Bay – Operated since 1975 by SLOCAPCD, this site provides regional scale and general/background ozone monitoring. Located in downtown Morro Bay, the monitor generally measures background levels of ozone from the predominant northwest winds blowing off of the Pacific Ocean. Under unusual meteorological conditions, the site can record elevated ozone concentrations transported from urban areas as far south as the Los Angeles basin.

Nipomo Regional Park (NRP) – Operated by SLOCAPCD since 1998, this station provides monitoring of background levels of ozone on a regional scale. Previously (1979 to 1996) ozone had been monitored in Nipomo on Wilson Street, several miles away. The ozone concentrations measured at NRP are representative of interior portions of the Nipomo Mesa and are the highest recorded in the coastal region of San Luis Obispo County.

Paso Robles – Operated by ARB since 1974, this population-oriented, neighborhood scale ozone monitor provides a representative ozone concentration for the suburban areas of the City of Paso

Robles. The conditions under which elevated ozone levels occur and the location's prevailing winds are similar to Atascadero.

Red Hills – Operated by SLOCAPCD since 2000, this station is located on the summit of Red Hills at an elevation of about 2,000 feet. It is in a very sparsely populated area near the community of Shandon. This regional scale site is often influenced by ozone transport from distant source areas outside of the county, and it consistently records the highest and most persistent ozone concentrations in the network; its site type is thus regional and maximum concentration. In early 2012, the eastern portion of the county was designated as marginally nonattainment for the federal 8-hr ozone standard based on the design value from this site.

San Luis Obispo – ARB has operated a population-oriented, neighborhood scale ozone monitor in the City of San Luis Obispo since 1970. The monitor has been at its current site since 2005. It provides a representative ozone concentration for the City of San Luis Obispo. The monitor is located in the urban area where ozone concentrations are significantly depleted by titration with local mobile and stationary NO_x sources. As a result, the concentrations recorded here are often lower than at Morro Bay.

As noted in Table 2, the SLAMS site types employed by the existing ozone network are:

1. Highest Concentration – The Red Hills station typically records the highest ozone concentrations in the county. The high ozone levels tend to occur in the interior areas of the county during summer, either following long periods of wind stagnation, or as a result of offshore winds which can transport pollutants from interior regions of the state from distant sources to the northeast. Among the sites in the western portion of the county, which are classified as attaining the ozone standard, Atascadero and Paso Robles measure the highest concentration.
2. Population Exposure – The Paso Robles, Atascadero, and San Luis Obispo monitors provide a good representation of the ozone levels in the larger cities of the county.
3. Source Impact – Because ozone is a secondary pollutant, the effect of emissions from any single source are experienced five to seven hours later and often many miles distant. As a regional pollutant, monitoring for specific sources of ozone is not performed.
4. General/Background – The monitors at Morro Bay, Carrizo Plains, and Nipomo Regional Park provide regional background ozone levels.
5. Regional Transport – The stations located at Carrizo Plains and Red Hills provide excellent surveillance of regional transport of ozone in the interior part of the county. Coastal monitoring stations have provided evidence in the past of regional transport of ozone over the Pacific Ocean from distant urban sources.

Nitrogen Dioxide Monitoring Network

The SLAMS network in San Luis Obispo County features nitrogen dioxide (NO₂) monitors at Atascadero and Nipomo Regional Park. NO₂ was also measured at Morro Bay until March 31, 2016.

NO₂ levels have always been well below the state and federal standards at all locations in our county. For this reason, NO₂ monitoring is most useful as an indicator of depletion of ambient ozone through titration with nitric oxide. Having at least one NO₂ monitor in each geographical region of the county also serves a long-term air quality surveillance role.

Atascadero – Operated by SLOCAPCD since 1990 and relocated in 2015, this population-oriented monitor is considered neighborhood scale. This is the only NO₂ monitor in the Salinas River air basin, and it records the highest NO, NO₂ and NO_x levels in the county. The monitor's downtown location has established a strong diurnal inverse relationship between ozone and NO₂ levels caused by local mobile sources and residential and commercial combustion of natural gas.

Morro Bay – Operated by SLOCAPCD from June 2001 through March 2016, this monitor was neighborhood scale and was established to monitor emissions from the Morro Bay Power Plant, located less than a mile upwind. The plant permanently closed in February 2014.

Nipomo Regional Park – Operated by the SLOCAPCD since 1998, this monitor is regional in scale and is representative of background concentrations on the Nipomo Mesa. The site's location in a large natural area away from local or mobile sources makes it ideal for regional surveillance of NO₂.

The SLAMS sites in the existing NO₂ network are:

1. Highest Concentration – The Atascadero monitor historically has measured the highest NO₂ concentrations in the county. NO₂ levels are the result of titration of ambient ozone by local sources of nitric oxide and as a result values are always relatively low. Levels have never exceeded the 1-hour NO₂ standard (100 ppb), with annual maximum 1-hour concentrations typically around 50% of the standard.
2. General/Background – With no significant local sources present, the monitors at Nipomo Regional Park, and previously at Morro Bay, provide excellent information on coastal background levels of NO₂.

Regional Transport and Welfare-Related impacts of NO₂ are not currently addressed by the District's SLAMS network and are not thought to be significant. With the closure of the Morro Bay Power Plant in 2014, the only potentially significant point source of NO₂ in the county, no monitors in the network are considered to be source-oriented. The San Luis Obispo-Paso Robles MSA, does not have, nor per Appendix D, Section 4.3 of 40 CFR 58 is it required to have, any NO₂ sites for vulnerable populations, near-road NO₂ monitoring sites, or area-wide NO₂ sites.

Sulfur Dioxide Monitoring Network

The sulfur dioxide (SO₂) monitoring network in San Luis Obispo County currently consists of one station: Mesa2.

Mesa2 – Established in 1989 and operated by the SLOCAPCD since 2006, this monitor performs surveillance of a nearby oil refinery. It is considered middle scale and highest concentration for SO₂. Since it is located close to and downwind of a major source of SO₂ emissions, it is representative

only of the immediate area. The station was sited to optimize surveillance of the refinery's nearby coke calciner, which has since been shut down. Nonetheless, the refinery remains the largest point source of SO₂ in the county, and during upsets, this monitor can record concentrations approaching and sometimes exceeding the NAAQS. In addition to meeting NAAQS compliance objectives, this site is also vital for public information and emergency response.

The SLAMS SO₂ monitoring objectives met by the network are:

1. Highest Concentration – The monitor at Mesa2 currently records the highest SO₂ levels in the county.
2. Source Impact – The monitor at Mesa2 is invaluable in determining the SO₂ source impact upon the immediate region.

Monitoring objectives not addressed by the existing SO₂ network are: General/Background, Population, Regional Transport, and Welfare-Related. Historical SO₂ monitoring performed elsewhere in the county (at NRP from 1998-2006; Morro Bay, 1979-1995; Grover Beach, 1982-2004; and at decommissioned stations in Arroyo Grande "Ralco" (06-079-1005), 1991-2002, and "Mesa1" (06-079-3002), 1987-94) has provided good evidence that monitoring for these objectives is not needed. Furthermore, background levels of SO₂ in the county are believed to be negligible, since more than 98% of hourly SO₂ levels from Mesa2 were 1 ppb or less in 2014.

There are no sources within SLOAPCD's jurisdiction with annual SO₂ emissions greater than 2000 tons; therefore, no monitoring is required to fulfill the "Data Requirements Rule" (40 CFR 51.1203).

Particulate Monitoring Network

The particulate monitoring SLAMS network in San Luis Obispo County consists of six Federal Equivalent Method (FEM) PM₁₀ monitors (Paso Robles, Atascadero, San Luis Obispo, Mesa2, CDF and Nipomo Regional Park) and four FEM PM_{2.5} monitors (Atascadero, CDF, Mesa2 and San Luis Obispo). The PM₁₀ network has been in place since 1988, and PM_{2.5} samplers began operation in 1999 in response to the establishment of a new federal standard for PM_{2.5} in 1997. Originally, all particulate monitoring in the county was performed as part of ARB's network, but eventually all monitors except those at Paso Robles and San Luis Obispo became part of the SLOAPCD network. Note that for quality assurance, the District remains part of the ARB PQAO. SLOAPCD, therefore, relies on ARB to perform federally required audits of its particulate monitors and to meet federal collocation requirements.

Initially, all particulate sampling was conducted by filter-based Federal Reference Method (FRM) monitors. With the advent of continuous monitoring technologies, all the FRM monitors in the county have been replaced with FEM monitors in recent years. Currently, these are Met One Instruments BAM 1020 continuous, semi-real time monitors that report hourly PM concentrations. The hourly data have greatly improved our abilities to issue timely air quality forecasts, which is a significant benefit for the advancement of public health goals.

In addition to these SLAMS monitors, the District operates the Oso Flaco PM₁₀ SPM, located within the ODSVRA.

Atascadero – Operated by SLOCAPCD, PM₁₀ monitoring has been conducted here since 1988, initially via a FRM and currently with a continuous FEM monitor. Collocated FRM PM_{2.5} monitors began operation in 1999 and have since been replaced by a single FEM. All monitors are neighborhood in scale and representative of particulate concentrations in the City of Atascadero. As previously noted, the station was moved about 400m north of its original location in February 2015.

CDF – Originally established for the SLOCAPCD's Nipomo Mesa Phase 2 Particulate Study, this site has become a permanent part of the SLAMS particulate network. The site features continuous FEM samplers for PM₁₀ and PM_{2.5}, which are neighborhood in scale and measure source impacts from the ODSVRA. These monitors record the highest particulate levels in the county and are strongly influenced by the ODSVRA, located directly upwind. In 2012, extensive temporary monitoring on the Nipomo Mesa confirmed that this site is located within the 1 square mile sector of the study area that experiences the highest PM₁₀ levels.⁴

Mesa2 – PM₁₀ sampling began at this site in 1991, and the monitors have been operated by the SLOCAPCD since 2006. This site initially featured collocated FRM PM₁₀ samplers that were replaced by a single continuous FEM PM₁₀ monitor in 2009. A continuous PM_{2.5} FEM monitor was installed at the same time. This site monitors source impacts from the nearby oil refinery and coastal dunes and the monitors are considered to be neighborhood in scale. These monitors record some of the highest particulate levels in the county and are strongly influenced by the extensive coastal sand dunes and the ODSVRA located upwind.

Nipomo Regional Park – Operated at this location by SLOCAPCD since 1998, it replaced a site at Wilson Street in Nipomo that operated from 1990-96. The 1-in-6 day FRM PM₁₀ sampler was replaced with a continuous FEM sampler in 2010. The monitor is regional in scale and is representative of PM₁₀ concentrations on the Nipomo Mesa.

Oso Flaco – Operated by SLOCAPCD on behalf of CDPR, this non-SLAMs PM₁₀ monitor was established in July 2015 to fulfill a requirement of SLOCAPCD Rule 1001. It is located within the Oso Flaco area of the ODSVRA; off-road vehicular activity is not permitted upwind of the monitor. It is considered neighborhood in scale, and representative of the non-riding areas of the dunes complex.

Paso Robles – Operated by ARB since 1991 this PM₁₀ monitor is urban in scale and representative of the City of Paso Robles. The FRM sampler at this site was replaced with an FEM PM₁₀ sampler in August 2009.

San Luis Obispo – Operated by ARB, a PM₁₀ sampler has been in place since 1988, and a PM_{2.5} sampler since 1999. ARB replaced the FRM samplers with continuous FEM instruments in 2011.

⁴ San Luis Obispo County Air Pollution Control District, "South County Community Monitoring Project," January 2013. Available online: <http://slocleanair.org/communitymonitoringproject>

These population-oriented monitors are neighborhood in scale and represent particulate concentrations in the City of San Luis Obispo. Due to a site safety issue, these monitors have been offline since September 2015, but ARB has assured the District that this is only a temporary shutdown.

Other Networks

San Luis Obispo County, which comprises the San Luis Obispo-Paso Robles MSA, is not required to have, nor does it have any, NCORE, PAMS, lead, carbon monoxide or near-road monitoring stations.

Proposed Network Changes and Improvements

The following sections list any modifications that are planned for the 18-month period after the publication of this ANP. Note that with a population well below 500,000, the San Luis Obispo-Paso Robles MSA/CBSA⁵ is not required to have any near-road NO₂, CO, or PM_{2.5} monitors, and therefore, SLOCAPCD has no plans to establish any such monitors. Additionally, there are no sources in our jurisdiction with SO₂ emissions greater than 2,000 tons per year, therefore no new SO₂ monitoring is needed nor planned to comply with the SO₂ Data Requirements Rule.

New Stations and Station Closures and Relocations

Currently, there are no plans to establish any new SLAMS or SPMs or to close or relocate any existing stations within the next 18 months.

Ozone Monitoring Network

No changes to the nitrogen dioxide monitoring network are anticipated.

Nitrogen Dioxide Network

No changes to the nitrogen dioxide monitoring network are anticipated.

Sulfur Dioxide Monitoring Network

No changes to the sulfur dioxide monitoring network are anticipated.

Particulate Monitoring Network

No changes to the particulate monitoring network are anticipated.

Statement Regarding Review of Changes to the PM_{2.5} Network

In the event that SLOCAPCD needs to change the location of a PM_{2.5} monitor that records violations of the NAAQS, the agency will notify EPA Region 9 and ARB contact points immediately, and work closely with ARB to formulate a plan for moving the site. The public will be notified of the plan and provided with an opportunity to comment for at least 30 days. Finally, the agency will submit formal notification to EPA. The SLOCAPCD intends to discuss and receive approval of any changes to our PM_{2.5} network, whether they affect monitors violating NAAQS or not, with ARB and EPA prior to making them, however, unforeseen circumstances (e.g. unexpected loss of site access) may preclude this.

Other Changes and Improvements:

None.

⁵ San Luis Obispo County, the San Luis Obispo-Paso Robles MSA, and the San Luis Obispo-Paso Robles Core Based Statistical Area (CBSA) have identical borders and populations.

Accessing Air Quality Data

All of the SLAMS and SPM monitoring stations currently operating in the county are registered with the EPA and ARB and regularly report data to the EPA's AQS database, ARB's AQMIS2 website, and the airnow.gov website. Validated data from SLAMS and SPM sites operated by SLOCAPCD are typically submitted to AQS by end of the quarter following the quarter in which they were collected. Usually data is submitted well before this deadline. Raw data is uploaded automatically to AQMIS and airnow.gov within an hour after being generated in the field. In addition, raw data for the current day and previous day is available on the SLOCAPCD website. All data generated at these stations are public information and are available in various formats. Table 3, below, lists some popular sources for these data.

SLOCAPCD, and when applicable ARB, regularly submit precision and accuracy data to AQS for all gaseous and particulate pollutants measured in the SLAMS network. Additionally, in accordance with 40 CFR 58.15, SLOCAPCD certifies its AQS dataset for the previous year every spring. SLOCAPCD submitted a certification package for calendar year 2015 data to EPA on April 25, 2016.

Table 3: Sources for Air Quality Data from San Luis Obispo

Agency	Address for Data Requests	Website for Data Access	Data Available Online
SLOCAPCD	3433 Roberto Court, San Luis Obispo, CA 93401	Table: www.slocleanair.org/air/lasthour.php Map: http://www.slocleanair.org/air/AirForecasting_map3.php	Raw data from last 24 to 48 hours for sites in San Luis Obispo County.
ARB	P.O. Box 2815 Sacramento, CA 95812	AQMIS2: www.arb.ca.gov/aqmisis2/aqdselect.php ADAM: www.arb.ca.gov/adam/	Most California sites, including all sites in San Luis Obispo County. Real-time raw data and archived validated data.
EPA	Ariel Rios Building 1200 Pennsylvania Ave NW Washington, DC 20460	AQS: www.epa.gov/ttn/airs/airsaqs/detaildata	Validated data from across the U.S. Typically one to several months behind current date.
AirNow.gov	U.S. EPA – OAQPS – ITG Mail Code E143-03 Research Triangle Park, NC 27711	www.airnow.gov	Current air quality conditions, nationwide. Based on real time, raw data.

Appendix A: Minimum Monitoring Requirements

The SLOCAPCD monitoring network meets the minimum monitoring requirements for all criteria pollutants as established in 40 CFR 58. The tables below list the criteria used to determine compliance with Federal regulations. The county population cited in these tables (269,637) is from the 2010 census; the California Department of Finance estimates the population to be 274,293 as of January 1, 2015.⁶ Using this figure in lieu of the official census number does not change the required number of sites for any pollutant.

Minimum Monitoring Requirements for Ozone (O₃)

MSA	County	Population (Census Year)	8-hour Design Value (years) ^a	Design Value Site Name (AQS ID)	Number of Required Sites ^b	Number of Active Sites	Number of Additional Sites Needed
San Luis Obispo-Paso Robles	San Luis Obispo	269,637 (2010)	73 ppb (2013-15) Red Hills	(06-079-8005)	1	7	0

^a This Design Value is for eastern San Luis Obispo County, which in early 2012 was designated as marginally nonattainment for the 2008 8-hour ozone standard. The design value for the rest of the county is either 61 ppb (2013-15) from Paso Robles (06-079-0005) or 62 ppb (2013-15) if data from the two Atascadero locations (06-079-8001 & 06-079-8002) are combined.

^b Refer to section 4.1 and Table D-2 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

⁶ California Department of Finance, "E-1, Population Estimates for Cities, Counties, and the State—January 1, 2014 and 2015." May 2015.
<http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php>

Minimum Monitoring Requirements for PM_{2.5} SLAMs

MSA	County	Population (Census Year)	Annual Design Value (years)	Annual Design Value Site (AQS ID)	Daily Design Value (years)	Daily Design Value Site Name (AQS ID)	Number of Required SLAMS Sites ^a	Number of Active SLAMS Sites	Number of Additional SLAMS Sites Needed
San Luis Obispo-Paso Robles	San Luis Obispo	269,637 (2010)	12.1 µg/m ³ (2013-15)	CDF (06-079-2007)	28 µg/m ³ (2013-15)	CDF (06-079-2007)	1	4	0

^a Refer to section 4.7.1 and Table D-5 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for Continuous PM_{2.5} Monitors

MSA	County	Population (Census Year)	Annual Design Value (years)	Annual Design Value Site (AQS ID)	Daily Design Value (years)	Daily Design Value Site Name (AQS ID)	Number of Required Continuous Monitors ^a	Number of Active Continuous Monitors	Number of Additional Continuous Monitors Needed
San Luis Obispo - Paso Robles	San Luis Obispo	269,637 (2010)	12.1 µg/m ³ (2013-15)	CDF (06-079-2007)	28 µg/m ³ (2013-15)	CDF (06-079-2007)	1	4	0

^a Refer to section 4.7.2 and Table D-5 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for PM₁₀

MSA	County	Population (Census Year)	Maximum Concentration (Year)	Maximum Concentration Site Name (AQS ID)	Number of Required Sites ^a	Number of Active Sites	Number of Additional Sites Needed
San Luis Obispo-Paso Robles	San Luis Obispo	269,637 (2010)	149 µg/m ³ (2015)	CDF (06-079-2007)	0-1	6 ^b	0

^a Refer to section 4.6 and Table D-4 of Appendix D to 40 CFR Part 58 for requirements.

^b In addition to these 6 SLAMS, there is also a PM₁₀ SPM.

Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for Nitrogen Dioxide (NO₂)

CBSA	Population (Census Year)	Maximum AADT Count (Years)	Number of Required Near-road Monitors ^a	Number of Active Near-road Monitors	Number of Additional Near-road Monitors Needed	Number of Required Area-wide Monitors ^a	Number of Active Area-wide Monitors	Number of Additional Area-wide Monitors Needed
San Luis Obispo-Paso Robles	269,637 (2010)	76,000 (2013)	0	0	0	0	2	0

^a Refer to section 4.3 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

Monitors required for PAMS: None

EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.3.4: None

Minimum Monitoring Requirements for Sulfur Dioxide (SO₂)

CBSA	County	Population (Census Year)	Total SO ₂ ^a (Tons/year)	Population Weighted Emissions Index (million person- tons/year) ^b	Data Requirements Rule Source(s) using Monitoring ^c	Number of Required Monitors ^d	Number of Active Monitors	Number of Additional Monitors Needed
San Luis Obispo-Paso Robles	San Luis Obispo	269,637 (2010)	272	73	NA	0	1	0

^a From the 2011 National Emissions Inventory. <http://www.epa.gov/ttn/chief/net/2011inventory.html>

^b Product of CBSA population and SO₂ emissions, divided by one million.

^c Refer to 40 CFR 51 Subpart BB. There are no sources within the county/CBSA/SLOCAPDC jurisdiction with annual emissions over 2,000 tons, therefore, neither monitoring nor modelling is required to meet the "Data Requirements Rule."

^d Refer to section 4.4 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

Minimum Monitoring Requirements for Carbon Monoxide (CO)

CBSA	Population (Census Year)	Number of Required Near-Road Monitors ^a	Number of Active Near-Road Monitors	Number of Additional Monitors Needed
San Luis Obispo- Paso Robles	269,637 (2010)	0	0	0

^a Refer to section 4.2 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

EPA Regional Administrator-required monitors per section 4.2.2. of Appendix D to 40 CFR 58: None

Minimum Monitoring Requirements for Lead (Pb) at NCore

NCore Site	CBSA	Population (Census Year)	Number of Required Monitors ^a	Number of Active Monitors	Number of Additional Monitors Needed
none	San Luis Obispo- Paso Robles	269,637 (2010)	0	0	0

^aRefer to section 4.5 of Appendix D to 40 CFR Part 58 for requirements.

Source-Oriented Lead Monitoring (Including Airports)

Source	Address	Pb Emissions (Tons/yr)	Emissions Inventory Source Data (Year)	Max 3-Month Design Value	Design Value Date	Number of Required Monitors ^a	Number of Active Monitors	Number of Additional Monitors Needed
none	n/a	n/a	n/a	n/a	n/a	0	0	0

^aRefer to section 4.5 of Appendix D to 40 CFR Part 58 for requirements.

Monitors required for SIP or Maintenance Plan: None

EPA Regional Administrator-required monitors per section 4.5(c) of Appendix D to 40 CFR 58: None

Appendix B: Collocation Requirements

Particulate monitoring (PM₁₀, PM_{2.5}, and lead) is subject to the collocation requirements described in section 3 of Appendix A to 40 CFR 58. The requirements apply at the PQAQ level, and monitors are aggregated by method when determining the number of needed collocated monitors. SLOCAPCD is part of the ARB PQAQ and all particulate monitors in our network are Met One 1020 Beta Attenuation Monitors (BAMs), which are continuous FEM instruments (PM₁₀ method code: 122; PM_{2.5} method code: 170). While there are no collocated particulate monitors within the SLOCAPCD network, there are collocated monitors within the ARB PQAQ.

Collocation requirements for PM_{2.5} are met at the PQAQ level and thus, by extension, for the SLOCAPCD. According to ARB's most recent Annual Monitoring Report for Small Districts in California,⁷ in 2014 there were 33 active PM_{2.5} FEM BAM 1020 monitors (method 170) in the PQAQ; thus five collocated monitors were needed: three FRM/FEM pairs and two FEM/FEM pairs. The report indicates that the ARB PQAQ met these minimum collocation requirements. This is corroborated by an AQS Certification and Concurrence Report (AMP600) for 2015 (executed in April 2016), which reported slightly different numbers of monitors, but nonetheless indicated that collocation requirements were met for 2015 year. See Table B-1 below.

With regard to PM₁₀ monitoring, all monitors in the District are continuous FEM BAMs, and thus there are no collocation requirements. Finally, lead monitoring is not done in the county; therefore, there is no collocation requirement.

Table B- 1: Collocation Requirements for PM_{2.5}, Method Code 170

Data Source (see text)	Number of Primary Monitors	Number of Required Collocated Monitors	Number of Active Collocated FRM Monitors	Number of Active Collocated FEM Monitors (same method designation as primary)
ARB	33	5	3	2
AMP600	34	5	6 total collocated monitors, type not indicated	

⁷ Air Resources Board, "Annual Monitoring Network Report for Twenty-three Districts in California," June 2015. <http://www.arb.ca.gov/aqd/amnr/amnr2015v1.pdf>.

Appendix C: Detailed Site Information

Local site name	Paso Robles	
AQS ID	06-079-0005	
GPS coordinates (decimal degrees)	35.61467, -120.65691	
Street Address	235 Santa Fe Ave, Paso Robles	
County	San Luis Obispo	
Distance to roadways (meters)	27 to Santa Fe Ave. 110 to Sherwood Rd. 180 to Creston Rd. 2700 to US 101	
Traffic count (AADT, year)	Santa Fe Ave.: 75 (estimated) ^a Sherwood Rd.: 10,000 (2008) ^a Creston Rd: 5,500 (2008) ^a US101: 62,700 (2014)	
Groundcover (e.g. asphalt, dirt, sand)	Asphalt	
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)	
Pollutant, POC	Ozone, 1	PM ₁₀ , 2
Primary / QA Collocated / Other	N/A	Primary
Parameter code	44201	81102
Basic monitoring objective(s)	NAAQS Comparison	Public info, NAAQS Comparison
Site type(s)	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS
Network Affiliation	N/A	N/A
Instrument manufacturer and model	API 400E	Met One BAM 1020
Method code	087	122
FRM/FEM/ARM/other	FEM	FEM
Collecting Agency	ARB	ARB
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A
Reporting Agency	ARB	ARB
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/01/1991	06/01/2013 ^b
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31
Probe height (meters)	6.2	5.2
Distance from supporting structure (meters)	2.9	1.9
Distance from obstructions on roof (meters)	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A
Distance from trees (meters)	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A

Local site name	Paso Robles	
For low volume PM instruments, is any PM instrument within 1m of the instrument?	N/A	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A
Unrestricted airflow (degrees)	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A
Residence time for reactive gases (seconds)	11.2	N/A
Will there be changes within the next 18 months?	No	No
Is it suitable for comparison against the annual PM _{2.5} ?	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	N/A
Date of 2015 Annual Performance Evaluation for gaseous parameters	12/14/2015	N/A
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A	2/25/2015 8/17/2015

^a This is the most current AADT available for this segment. ^b This instrument did not begin reporting PM₁₀-standard (88102) until 06/01/2013, but has been reporting PM₁₀-actual (85101) since 08/11/2009.

Local site name	Grover Beach
AQS ID	06-079-2001
GPS coordinates (decimal degrees)	35.12393, -120.63222
Street Address	9 Le Sage Drive, Grover Beach
County	San Luis Obispo
Distance to roadways (meters)	10 to Le Sage Drive 120 to US 1
Traffic count (AADT, year)	Le Sage: 300 (estimated) US 1: 10,300 (2014)
Groundcover (e.g. asphalt, dirt, sand)	Cement and dirt
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	None (this is meteorology-only station)

Local site name	Mesa2		
AQS ID	06-079-2004		
GPS coordinates (decimal degrees)	35.02079, -120.56389		
Street Address	1300 Guadalupe Rd., Nipomo		
County	San Luis Obispo		
Distance to roadways (meters)	40 to Guadalupe Rd. (US 1)		
Traffic count (AADT, year)	Guadalupe Rd. (US 1): 5200 (2014)		
Groundcover (e.g. asphalt, dirt, sand)	Vegetative		
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)		
Pollutant, POC	SO ₂ , 1	PM _{2.5} , 1	PM ₁₀ , 3
Primary / QA Collocated / Other	N/A	Primary	Primary
Parameter code	42401	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison
Site type(s)	Source Oriented, Max Concentration	Source Oriented	Source Oriented
Monitor type(s)	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A
Instrument manufacturer and model	API T100U	Met One BAM 1020	Met One BAM 1020
Method code	100	170	122
FRM/FEM/ARM/other	FEM	FEM	FEM
Collecting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other) N	/A	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Middle	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	05/01/1989	07/01/2009	07/01/2009
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1) contin	uous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.8	5.4	5.5
Distance from supporting structure (meters) 1.3		1.9	2.0
Distance from obstructions on roof (meters) N/A		N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	No	No

Local site name	Mesa2		
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A
Residence time for reactive gases (seconds) 13.7		N/A	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	N/A	N/A
Date of 2015 Annual Performance Evaluation for gaseous parameters	6/2/2015	N/A	N/A
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A	6/2/2015 12/15/2015	6/2/2015 12/15/2015

Local site name	San Luis Obispo		
AQS ID	06-079-2006		
GPS coordinates (decimal degrees)	35.25651, -120.66945		
Street Address	3220 South Higuera St., San Luis Obispo		
County	San Luis Obispo		
Distance to roadways (meters)	50 to South Higuera St. 450 to US 101		
Traffic count (AADT, year)	South Higuera St.: 15,551 (2014) US 101: 61,100 (2014)		
Groundcover (e.g. asphalt, dirt, sand)	Vegetative (to the west and north), Asphalt (east and south)		
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)		
Pollutant, POC	O ₃ , 1	PM _{2.5} , 3	PM ₁₀ , 2
Primary / QA Collocated / Other	N/A	Primary	Primary
Parameter code	44201	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison, Public Info
Site type(s)	Population Exposure	General/ Background	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A
Instrument manufacturer and model	API T400	Met One BAM 1020	Met One BAM 1020
Method code	087	170	122
FRM/FEM/ARM/other	FEM	FEM	FEM
Collecting Agency	ARB	ARB	ARB
Analytical Lab (i.e. weigh lab, toxics lab, other) N	/A	N/A	N/A
Reporting Agency	ARB	ARB	ARB
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	09/21/2005 03/15	/2011 06/01/2013	^a
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1) continuous	continuous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31 01/01-12/31	01-12/31 01/01-12/31	01-12/31
Probe height (meters)	12.8	12.8	12.8
Distance from supporting structure (meters) 1.8		2.0	2.0
Distance from obstructions on roof (meters) N/A		N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A

Local site name	San Luis Obispo		
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	No	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	N/A	N/A
Residence time for reactive gases (seconds) 10.5		N/A	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ?	N/A	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	N/A	N/A
Date of 2015 Annual Performance Evaluation for gaseous parameters	6/2/2015	N/A	N/A
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A	2/25/2015 8/18/2015	2/25/2015 8/18/2015

^aThis instrument did not begin reporting PM₁₀-standard (88102) until 06/01/2013, but has been reporting PM₁₀-actual (85101) since 03/15/2011.

Local site name	CDF	
AQS ID	06-079-2007	
GPS coordinates (decimal degrees)	35.04673, -120.58777	
Street Address	2391 Willow Rd., Arroyo Grande	
County	San Luis Obispo	
Distance to roadways (meters)	53 to Willow Rd. (US 1).	
Traffic count (AADT, year)	Willow Rd. (US1): 6,400 (2014)	
Groundcover (e.g. asphalt, dirt, sand)	Vegetative, Sand	
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)	
Pollutant, POC	PM _{2.5} , 1	PM ₁₀ , 2
Primary / QA Collocated / Other	Primary	Primary
Parameter code	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison
Site type(s)	Max Concentration, Source Oriented	Max Concentration, Source Oriented
Monitor type(s)	SLAMS	SLAMS
Network Affiliation	N/A	N/A
Instrument manufacturer and model	Met One BAM 1020	Met One BAM 1020
Method code	170	122
FRM/FEM/ARM/other	FEM	FEM
Collecting Agency	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	08/01/2010	01/01/2010
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31
Probe height (meters)	4.0	4.0
Distance from supporting structure (meters)	1.4	1.4
Distance from obstructions on roof (meters)	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A
Distance from trees (meters)	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A
Unrestricted airflow (degrees)	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A	N/A

Local site name	CDF	
Residence time for reactive gases (seconds)	N/A	N/A
Will there be changes within the next 18 months?	No	No
Is it suitable for comparison against the annual PM2.5?	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A
Frequency of flow rate verification for automated P M analyzers	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	N/A	N/A
Date of 2015 Annual Performance Evaluation for gaseous parameters	N/A	N/A
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	6/4/2015 12/15/2015	6/4/2015 12/15/2015

Local site name	Morro Bay	
AQS ID	06-079-3001	
GPS coordinates (decimal degrees)	35.36640, -120.84268	
Street Address	899 Morro Bay Blvd., Morro Bay	
County	San Luis Obispo	
Distance to roadways (meters)	37 to Morro Bay Blvd. 220 to CA 1	
Traffic count (AADT, year)	Morro Bay Blvd.: 12,388 (2015) CA 1: 21,200 (2014)	
Groundcover (e.g. asphalt, dirt, sand)	Paved	
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)	
Pollutant, POC	O ₃ , 1	NO ₂ , 1
Primary / QA Collocated / Other	N/A	Primary
Parameter code	44201	42602
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison
Site type(s)	General/Background	General/Background
Monitor type(s)	SLAMS	SLAMS
Network Affiliation	N/A	N/A
Instrument manufacturer and model	API 400A	API T200U
Method code	087	599 ^a
FRM/FEM/ARM/other	FEM	FRM
Collecting Agency	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Regional	Neighborhood
Monitoring start date (MM/DD/YYYY)	01/01/1981	06/01/2001
Monitoring end date (MM/DD/YYYY)	N/A	03/31/2016
Current sampling frequency (e.g. 1:3, continuous) c	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31
Probe height (meters)	4.2	4.2
Distance from supporting structure (meters)	1.1	1.1
Distance from obstructions on roof (meters)	N/A	N/A
Distance from obstructions not on roof (meters) N/A		N/A
Distance from trees (meters)	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	N/A
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A
Unrestricted airflow (degrees)	360	360

Local site name	Morro Bay	
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon
Residence time for reactive gases (seconds)	6.6	5.9
Will there be changes within the next 18 months? N	o	No
Is it suitable for comparison against the annual PM _{2.5} ?	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A
Frequency of one-point QC check for gaseous instruments	daily	daily
Date of 2015 Annual Performance Evaluation for gaseous parameters	03/11/2015	03/11/2015
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A

^a EPA, "AQS Memo - Changes to Oxides of Nitrogen Analyzer Method Codes," December 22, 2014.

<https://www.epa.gov/aqs/aqs-memo-changes-oxides-nitrogen-analyzer-method-codes>

Local site name	Nipomo Regional Park (NRP)		
AQS ID	06-079-4002		
GPS coordinates (decimal degrees)	35.03150, -120.50101		
Street Address	W. Tefft St. and Pomeroy Rd., Nipomo		
County	San Luis Obispo		
Distance to roadways (meters)	500 to Tefft St. 350 to Camino Caballo 240 to Pomeroy Rd.		
Traffic count (AADT, year)	Tefft St.: 8943 (2012) ^a Camino Caballo: 2411 (2011) ^a Pomeroy Rd.: 5833 (2014)		
Groundcover (e.g. asphalt, dirt, sand)	Vegetative		
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)		
Pollutant, POC	O ₃ , 1	NO ₂ , 1	PM ₁₀ , 2
Primary / QA Collocated / Other	N/A	Primary	Primary
Parameter code	44201	42602	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison
Site type(s)	General/ Background	General/ Background	General/ Background
Monitor type(s)	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A
Instrument manufacturer and model	API 400E	API T200U	Met One BAM 1020
Method code	087	599 ^b	122
FRM/FEM/ARM/other	FEM	FRM	FEM
Collecting Agency	SLOCAPCD SLOCAPCD SLOCAPCD		
Analytical Lab (i.e. weigh lab, toxics lab, other) N	/A	N/A	N/A
Reporting Agency	SLOCAPCD SLOCAPCD SLOCAPCD		
Spatial scale (e.g. micro, neighborhood)	Regional	Regional	Regional
Monitoring start date (MM/DD/YYYY)	11/01/1998	11/01/1998	05/16/2010
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1) continuous	continuous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.0	4.0	4.7
Distance from supporting structure (meters) 1.0		1.0	1.7
Distance from obstructions on roof (meters) N/A		N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A

Local site name	Nipomo Regional Park (NRP)		
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	N/A	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A
Residence time for reactive gases (seconds) 5.5		5.5	N/A
Will there be changes within the next 18 months?	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ?	N/A	N/A	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	daily	N/A
Date of 2015 Annual Performance Evaluation for gaseous parameters	6/2/2015	6/2/2015	N/A
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A	6/2/2015 12/15/2015

^a This is the most current AADT available for this segment.

^b EPA, "AQS Memo - Changes to Oxides of Nitrogen Analyzer Method Codes," December 22, 2014.
<https://www.epa.gov/aqs/aqs-memo-changes-oxides-nitrogen-analyzer-method-codes>

Local site name	Atascadero			
AQS ID	06-079-8002			
GPS coordinates (decimal degrees)	35.49453, -120.66617			
Street Address	5599 Traffic Way, Atascadero, CA			
County	San Luis Obispo			
Distance to roadways (meters)	163 to Traffic Way 770 to US 101 330 to CA 41			
Traffic count (AADT, year)	Traffic Way: < 7400 (2014) ^a US 101: 60,100 (2014) CA 41: 5600 (2014)			
Groundcover (e.g. asphalt, dirt, sand)	Vegetative			
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)			
Pollutant, POC	O ₃ , 1	NO ₂ , 1	PM _{2.5} , 3	PM ₁₀ , 3
Primary / QA Collocated / Other	N/A	Primary	Primary	Primary
Parameter code	44201	42602	88101	81102
Basic monitoring objective(s)	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison	NAAQS Comparison
Site type(s)	Population Exposure, Max Concentration	Population Exposure, Max Concentration	Population Exposure	Population Exposure
Monitor type(s)	SLAMS	SLAMS	SLAMS	SLAMS
Network Affiliation	N/A	N/A	N/A	N/A
Instrument manufacturer and model	API T400	API T200	Met One BAM 1020	Met One BAM 1020
Method code	087	099	170	122
FRM/FEM/ARM/other	FEM	FRM	FEM	FEM
Collecting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other) N	/A	N/A	N/A	N/A
Reporting Agency	SLOCAPCD	SLOCAPCD	SLOCAPCD	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date (MM/DD/YYYY)	02/25/2015	02/25/2015	02/25/2015	02/25/2015
Current sampling frequency (e.g. 1:3, continuous)	continuous	continuous	continuous	continuous
Calculated sampling frequency (e.g. 1:3/1:1) contin	uous	continuous	continuous	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31	01/01-12/31	01/01-12/31	01/01-12/31
Probe height (meters)	4.7	4.7	5.8	5.3
Distance from supporting structure (meters) 1.1		1.1	2.2	1.7
Distance from obstructions on roof (meters) N/A		N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A
Distance from trees (meters)	N/A	N/A	N/A	N/A
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A

Local site name	Atascadero			
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A	N/A	N/A	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A	N/A	N/A	No
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon	Teflon	N/A	N/A
Residence time for reactive gases (seconds) 10		14.6	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No
Is it suitable for comparison against the annual PM _{2.5} ?	N/A	N/A	Yes	N/A
Frequency of flow rate verification for manual PM samplers	N/A	N/A	N/A	N/A
Frequency of flow rate verification for automated PM analyzers	N/A	N/A	bi-weekly	bi-weekly
Frequency of one-point QC check for gaseous instruments	daily	daily	N/A	N/A
Date of 2015 Annual Performance Evaluation for gaseous parameters	6/3/2015	6/3/2015	N/A	N/A
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A	N/A	6/3/2015 11/6/2015	6/3/2015 11/6/2015

^a Traffic counts were conducted only during peak morning and afternoon hours along this street. Along this stretch of Traffic Way, a total of 1,233 vehicles were counted during these four hours, therefore, six times this figure (7,398) represents the likely maximum AADT.

Local site name	Red Hills
AQS ID	06-079-8005
GPS coordinates (decimal degrees)	35.64366, -120.23134
Street Address	3601 Gillis Canyon Rd., Shandon
County	San Luis Obispo
Distance to roadways (meters)	100 to Gillis Canyon Rd. 1740 to Bitterwater Rd. 10,400 to CA 41
Traffic count (AADT, year)	Gillis Canyon Rd.: 26 (2013) ^a Bitterwater Rd.: 51 (2011) ^a CA 41: 1650 (2014)
Groundcover (e.g. asphalt, dirt, sand)	Vegetative
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	O ₃ , 1
Primary / QA Collocated / Other	N/A
Parameter code	44201
Basic monitoring objective(s)	NAAQS Comparison
Site type(s)	Regional Transport, Max Concentration
Monitor type(s)	SLAMS
Network Affiliation	N/A
Instrument manufacturer and model	API T400
Method code	087
FRM/FEM/ARM/other	FEM
Collecting Agency	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A
Reporting Agency	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Regional
Monitoring start date (MM/DD/YYYY)	07/01/2000
Current sampling frequency (e.g. 1:3, continuous) c	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31
Probe height (meters)	4.8
Distance from supporting structure (meters)	1.2
Distance from obstructions on roof (meters)	N/A
Distance from obstructions not on roof (meters) N/A	
Distance from trees (meters)	N/A
Distance to furnace or incinerator flue (meters)	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A
Unrestricted airflow (degrees)	360

Local site name	Red Hills
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon
Residence time for reactive gases (seconds)	9.6
Will there be changes within the next 18 months? N	o
Is it suitable for comparison against the annual PM _{2.5} ?	N/A
Frequency of flow rate verification for manual PM samplers	N/A
Frequency of flow rate verification for automated PM analyzers	N/A
Frequency of one-point QC check for gaseous instruments	daily
Date of 2015 Annual Performance Evaluation for gaseous parameters	3/10/2015
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A

^a This is the most current AADT available for this segment.

Local site name	Carrizo Plains
AQS ID	06-079-8006
GPS coordinates (decimal degrees)	35.35474, -120.04013
Street Address	9640 Carrizo Highway (CA 58), California Valley
County	San Luis Obispo
Distance to roadways (meters)	38 to Carrizo Highway (CA 58)
Traffic count (AADT, year)	Carrizo Highway (CA 58): 880 (2014)
Groundcover (e.g. asphalt, dirt, sand)	Vegetative (to the west, north, and east) Asphalt (south)
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	O ₃ , 1
Primary / QA Collocated / Other	N/A
Parameter code	44201
Basic monitoring objective(s)	NAAQS Comparison
Site type(s)	Regional Transport, General Background
Monitor type(s)	SLAMS
Network Affiliation	N/A
Instrument manufacturer and model	API T400
Method code	087
FRM/FEM/ARM/other	FEM
Collecting Agency	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A
Reporting Agency	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Regional
Monitoring start date (MM/DD/YYYY)	01/01/2006
Current sampling frequency (e.g. 1:3, continuous) c	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31
Probe height (meters)	4.7
Distance from supporting structure (meters)	1.1
Distance from obstructions on roof (meters)	N/A
Distance from obstructions not on roof (meters) N/A	
Distance from trees (meters)	N/A
Distance to furnace or incinerator flue (meters)	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A
Unrestricted airflow (degrees)	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	Teflon

Local site name	Carrizo Plains
Residence time for reactive gases (seconds)	9.9
Will there be changes within the next 18 months? N	o
Is it suitable for comparison against the annual PM2.5?	N/A
Frequency of flow rate verification for manual PM samplers	N/A
Frequency of flow rate verification for automated PM analyzers	N/A
Frequency of one-point QC check for gaseous instruments	daily
Date of 2015 Annual Performance Evaluation for gaseous parameters	03/10/2015
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	N/A

Local site name	Oso Flaco
AQS ID	06-079-9001
GPS coordinates (decimal degrees)	35.00876, -120.59998
Street Address	Near intersection of Oso Flaco Lake & Beigle Rds., Nipomo
County	San Luis Obispo
Distance to roadways (meters)	1150 to Oso Flaco Lake Rd. 2800 to Guadalupe Rd. (US 1).
Traffic count (AADT, year)	Oso Flaco Lake Rd.: 639 (2014). Guadalupe Rd. (US 1): 4900 (2014).
Groundcover (e.g. asphalt, dirt, sand)	Vegetative
Representative statistical area name (i.e. MSA, CBSA, other)	San Luis Obispo – Paso Robles (MSA)
Pollutant, POC	PM ₁₀ , 1
Primary / QA Collocated / Other	N/A
Parameter code	81102
Basic monitoring objective(s)	Public Information, Rule 1001 Compliance
Site type(s)	Background
Monitor type(s)	SPM
Network Affiliation	N/A
Instrument manufacturer and model	Met One BAM 1020
Method code	122
FRM/FEM/ARM/other	FEM
Collecting Agency	SLOCAPCD
Analytical Lab (i.e. weigh lab, toxics lab, other)	N/A
Reporting Agency	SLOCAPCD
Spatial scale (e.g. micro, neighborhood)	Neighborhood
Monitoring start date (MM/DD/YYYY)	07/01/2015
Current sampling frequency (e.g. 1:3, continuous) c	continuous
Calculated sampling frequency (e.g. 1:3/1:1)	continuous
Sampling season (MM/DD-MM/DD)	01/01-12/31
Probe height (meters)	3.3
Distance from supporting structure (meters)	2.0
Distance from obstructions on roof (meters)	N/A
Distance from obstructions not on roof (meters) N/A	
Distance from trees (meters)	N/A
Distance to furnace or incinerator flue (meters)	N/A
Distance between monitors fulfilling a QA Collocation requirement (meters)	N/A
For low volume PM instruments, is any PM instrument within 1 m of the instrument?	N/A
For high volume PM instruments, is any PM instrument within 2m of the instrument?	N/A
Unrestricted airflow (degrees)	360
Probe material for reactive gases (e.g. Pyrex, stainless steel, Teflon)	N/A

Local site name	Oso Flaco
Residence time for reactive gases (seconds)	N/A
Will there be changes within the next 18 months? N	o
Is it suitable for comparison against the annual PM2.5?	N/A
Frequency of flow rate verification for manual PM samplers	N/A
Frequency of flow rate verification for automated PM analyzers	bi-weekly
Frequency of one-point QC check for gaseous instruments	N/A
Date of 2015 Annual Performance Evaluation for gaseous parameters	N/A
Dates of 2015 Semi-Annual Flow Rate Audits for PM monitors	8/6/2015 12/15/2016

Appendix D: SLOCAPCD Request to Shut Down the Morro Bay NO₂ Monitor



Air Pollution Control District
San Luis Obispo County

Meredith Kurpius, Ph.D.
Air Quality Analysis Office, Manager
U.S. EPA Region 9
75 Hawthorne Street
Mail Code: AIR-7
San Francisco, California 94105

Dear Dr. Kurpius:

The San Luis Obispo County Air Pollution Control District is requesting approval from U.S. EPA to discontinue the Nitrogen Dioxide monitor at our Morro Bay site (Site ID: 06-079-3001). This is a SLAMS monitor which, as documented in our 2015 5-Year Ambient Air Monitoring Network Assessment, has shown attainment during the five year period from 2010 to 2014; has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past; and is not specifically required by an attainment plan or maintenance plan. Updating these calculations with preliminary data for 2015 does not change these conclusions (See attachment).

This monitor was originally established in 2001 to monitor emissions from the power plant in Morro Bay, but that facility was permanently closed in early 2014. Based on the analysis included with this request, the nitrogen dioxide monitor at Morro Bay meets the requirements of 40 CFR Part 58.14 (c)(1) and is not specifically required by an attainment or maintenance plan. As documented in our Annual Air Monitoring Network Plan for 2015, it is not needed to meet 40 CFR Part 58 Appendix D minimum monitoring requirements.

Discontinuing this monitor will free up resources and allow the District to focus on more critical monitoring activities. Pending your approval, we aim to shut the monitor down on March 31, 2016 in order to have complete data for the first quarter of this year. Please feel free to contact me with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Karl Tupper", written over a horizontal line.

Karl Tupper, Air Quality Specialist III
San Luis Obispo County Air Pollution Control District
805.781.4645 / ktupper@co.slo.ca.us

Attachment: Calculation of Probability of Exceeding 80% of the NAAQS

The following NO₂ design values for Morro Bay (06-079-3001) were extracted from AQS on March 10, 2016; note that the 2015 design value is preliminary as data for that year are not yet certified:

Design Value Year	1-hour NO ₂ Design Value (ppb)
2010	32
2011	32
2012	32
2013	33
2014	32
2015	31

EPA guidance¹ suggests determining whether the probability of exceeding 80% of the NAAQS is less than 10% by first calculating the upper 90th percentile confidence level of the mean of 5 consecutive design values, and then comparing this value to 80% of the NAAQS. These calculations are shown in the table below using design values for 2010 through 2014 and also for 2011 through 2015:

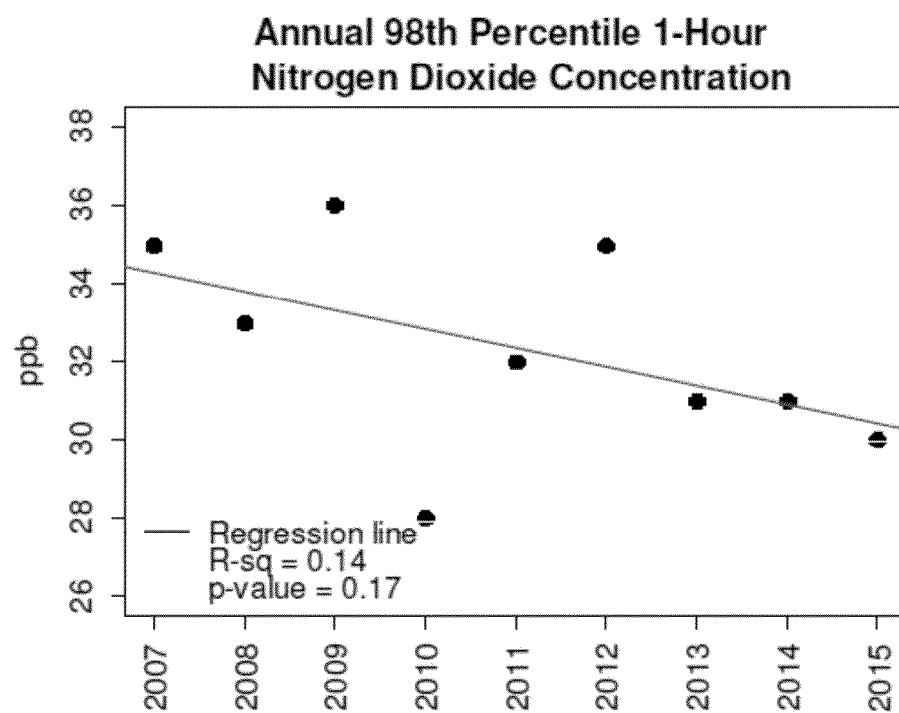
Years	Mean (ppb)	Standard Deviation (ppb)	Observations	Upper 90% Confidence Level
2010-2014	32.2	0.4	5	32.6
2011-2015	32.0	0.7	5	32.7

The relevant NAAQS is the 1-hour standard of 100 ppb, 80% of which is 80 ppb. As shown in the table, mean and upper 90th percentile confidence levels for both time periods are far below this level, indicating the monitor meets the 40 CFR Part 58.14 (c)(1) criteria.

According to 40 CFR Part 58.14 (c)(1), "trends" are also to be considered. As a simple test, a time series of the annual 98th percentile 1-hour values for 2007 through 2015 are plotted below, along with the least squares regression line. As can be seen there is a shallow trend toward lower values, though this trend is not statistically significant, with an F-statistic of

¹ EPA 2007. "Ambient Air Monitoring Network Assessment Guidance," EPA-454/D-07-001, February 2007. <https://www3.epa.gov/ttnamti1/files/ambient/pm25/datamang/network-assessment-guidance.pdf>

2.3 on 1 and 7 degrees of freedom, which corresponds to a p-value of 0.17. Thus, there is no evidence that 98th percentile nitrogen dioxide levels are increasing at this location.



Appendix E: EPA Approval of Shut Down Morro Bay NO₂ Monitor



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

MAR 28 2016

OFFICE OF THE
REGIONAL ADMINISTRATOR

Mr. Karl Tupper
Air Quality Specialist, Monitoring
San Luis Obispo County Air Pollution Control District
3433 Roberto Court
San Luis Obispo, CA 93401

Dear Mr. Tupper:

This letter provides the U.S. Environmental Protection Agency's (EPA's) review and approval for the San Luis Obispo County Air Pollution Control District's (SLOCAPCD's) discontinuation of the NO₂ State/Local Air Monitoring Station (SLAMS) monitor at the Morro Bay site (AQS ID: 06-079-3001).

On March 11, 2016 SLOCAPCD sent a letter to EPA with a description of this network change. Per 40 CFR 58.14, monitoring agencies are required to obtain EPA approval for the discontinuation of SLAMS monitors. The monitor discontinuation was specifically reviewed by EPA against criteria contained in 40 CFR 58.14(c)(1). According to certified data submitted to EPA's Air Quality System (AQS) and supporting documentation provided by SLOCAPCD, the Morro Bay SLAMS NO₂ monitor was in attainment of the NO₂ National Ambient Air Quality Standards (NAAQS) from 2010 through 2014. We have determined that there is a less than 10 percent probability of exceeding 80 percent of the NAAQS during the next three years (2015-2017) based on historical NO₂ levels, trends, and variability. Preliminary concentrations currently available for 2015 continue to show low values. The monitor is not specifically required by an attainment or maintenance plan and is not located in a nonattainment or maintenance area. Your letter also indicates that the original source of concern was removed and there are no other sources of concern located within the area. Furthermore, discontinuance of this monitoring will not prevent SLOCAPCD from meeting 40 CFR 58, Appendix D requirements.

Based on the weight of the evidence presented above and pursuant to 40 CFR 58.14(c)(1), EPA approves SLOCAPCD's discontinuation of the Morro Bay NO₂ SLAMS monitor. Please include this correspondence and reflect the discontinuation in your next Annual Monitoring Network Plan. Please also note these changes in the AQS site comment field.

If there are any questions regarding this letter, please feel free to contact me at (415) 947-4534 or Dena Vallano of my staff at (415) 972-3134.

Sincerely,

A handwritten signature in dark ink, appearing to read "Meredith Kurpius".

Meredith Kurpius, Manager
Air Quality Analysis Office

cc (via email): Larry Allen, SLOCAPCD
Gayle Sweigert, California Air Resources Board
Greg Gilani, California Air Resources Board